

**REMARKS**

Pursuant to the present amendment, claims 1, 11 and 21 have been amended and claims 2, 14, 27 and 32 have been canceled. Thus, claims 1, 3-13, 15-26, 28-31 and 33-36 are pending in the present application. No new matter has been introduced by way of the present amendment. Reconsideration of the present application is respectfully requested in view of the amendments and arguments set forth herein.

In the Office Action, claim 11 was rejected under 35 U.S.C. § 112, second paragraph, because “said second etch stop layer” lacked antecedent basis. Pursuant to the present amendment, the dependency of claim 11 has been amended in a manner believed to overcome the Section 112 rejection. Withdrawal of the rejection is respectfully requested.

In the Office Action, claims 1-8, 10-17, 21-23 and 27-36 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Bae (U.S. Patent Publication No. 2002/0189795). Claims 9 and 24 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Bae in view of Lin (U.S. Patent No. 6,534,388). Claims 18-20, 25 and 26 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Bae in view of Lin. Applicants respectfully traverse the Examiner’s rejections.

As the Examiner well knows, an anticipating reference by definition must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. *In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). To the extent the Examiner relies on principles of inherency in making the anticipation rejections in the Office Action, inherency requires that the asserted proposition necessarily flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1463-64 (Bd. Pat. App.

& Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Int. 1987); *In re King*, 231 U.S.P.Q. 136, 138 (Fed. Cir. 1986). It is not enough that a reference could have, should have, or would have been used as the claimed invention. “The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Oelrich*, at 326, quoting *Hansgirk v. Kemmer*, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; see also *Skinner*, at 1789. “Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Skinner*, at 1789, citing *Oelrich*. Where anticipation is found through inherency, the Office’s burden of establishing *prima facie* anticipation includes the burden of providing “...some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” *Skinner* at 1789.

Moreover, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35

U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

Pursuant to the present amendment, independent claim 1 has been amended to recite that the anisotropic etching step and the two removal steps set forth in claim 1 are performed in a single etch chamber as an *in situ* process. Independent claim 21 has been amended in a similar fashion. Support for the present amendments can be found in the specification at, for example, p. 20, l. 22 – p. 21, l. 11. As thus amended, it is respectfully submitted that these independent claims, as well as all claims depending therefrom, are in condition for immediate allowance.

At no point does Bae, the Examiner's primary reference, ever disclose or suggest the methodologies set forth in the pending claims. Now-canceled dependent claims 14 and 32 contained the limitation that various processes described in those claims were performed as an in situ process. In rejecting claims 14 and 32, the Examiner cited to paragraphs 39-40 of Bae. Office Action, p. 4. Applicants respectfully submit that the cited paragraphs of Bae do not support the Examiner's conclusion. In fact, paragraphs 39-40 of Bae are completely silent on this issue. Moreover, it is beyond dispute that Bae does not disclose the use of a single chamber to perform the various acts recited in claims 1 and 21. Accordingly, it is respectfully submitted that Bae does not anticipate the pending claims.

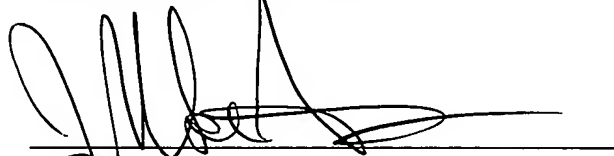
Moreover, it is respectfully submitted that the pending claims are not obvious in view of the art of record. First, it should be noted that Lin, the Examiner's secondary reference, does not cure the fundamental deficiencies in Bae. Thus, even if these two references were combined, that combination of prior art would not disclose each and every limitation of the claimed invention. Accordingly, such an obviousness rejection would be legally improper.

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. It is respectfully submitted that any attempt to assert that the inventions defined by amended independent claims 1 and 21 would have been obvious in view of the prior art of record would constitute an impermissible use of hindsight using Applicants' disclosure as a roadmap.

For at least the aforementioned reasons, it is respectfully submitted that all pending claims are in condition for immediate allowance. The Examiner is invited to contact the undersigned attorney at (713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'J. Mike Amerson', is written over a horizontal line.

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